cost of managing a dry eye patient was $783 in the US from the payers' perspective, with $678, $771, and $1267 for mild, moderate, and severe patients separately. The overall direct costs of DED for the health care system was $3.84 billion based on the prevalence of DED. The average annual direct cost for self-treated patients using OTC treatment or nutritional supplements was estimated as $126 per patient. The annual productivity loss per full-time worker with DED ranges from $12, 569 to $18,168 depending on the severity of symptoms. The sensitivity analysis suggested that the estimated mean direct cost per DED patient seeking professional medical care ranges from $757 to $809 approximately. Multiple one-way sensitivity analysis suggested the cost estimate was most sensitive to the variation in the distribution of severity of symptoms, the frequency of ophthalmologist visits, prevalence of the combined use of punctal plugs and cyclosporine, the frequency of optometrist, and compliance with cyclosporine by severe patients. **CONCLUSIONS:** DED poses a substantial amount of economic burden for the payer and the society with the indirect costs substantially outweighing the direct costs.

PSS4

COST EFFECTIVENESS ANALYSIS OF THE ACRYSOF CACHET PHAKIC INTRAOCULAR LENS

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OBJECTIVES: To determine the cost-effective threshold price of the AcrySof Cachet phakic intraocular lens (PIOL) relative to the currently marketed Visian and Artisan PIOLs in the US. **METHODS:** We developed a Markov cost-effectiveness model that compared the Cachet to the Visian and Artisan PIOLs in a hypothetical cohort of patients with moderate to high myopia. A payer perspective was adopted. Costs and effectiveness results were discounted at 3% over a 40 year time horizon. Effectiveness was expressed as vision adjusted life years (VALYs). VALYs represent a quantification of the benefits derived from various levels of visual acuity (VA) accumulated over time. VA outcome probabilities were taken directly from the CE Mark (Cachet) and FDA approved PIOL product labels. The prices of the Visian and Artisan PIOLs were $750 and $695 respectively. Patients with less than 20/20 VA were assumed to require either glasses and/or contact lenses. PIOL, contact lenses and eye glasses costs were based on 2009 data from MarketScope and the Vision Watch Report. Probabilities for adverse events and associated procedures were derived from PIOL product labels and physician interviews. Surgical and drug costs were estimated using reference based physician fee estimates and the Medi-Span Price Rx database. Uncertainty was addressed through univariate and probabilistic sensitivity analysis (PSA). **RESULTS:** The base-case cost-effectiveness model indicated that the Cachet PIOL economically dominated the Visian PIOL up to a threshold price of $1587, and the Artisan PIOL up to a threshold price of $2373. The PSA showed that at these prices, the probabilities that the Cachet dominated were 59% and 63% respectively. **CONCLUSIONS:** Given its greater efficacy and favourable adverse events profile, the Cachet PIOL was economically dominant up to a price twice that of the Visian PIOL and three times that of the Artisan PIOL with a considerable degree of certainty.

PSS5

COST-EFFECTIVENESS STUDY ON THE USE OF TERBINAFINE VS. ITRACONAZOLE IN THE TREATMENT OF ONYCHOMYCOSIS IN MEXICO: AN INSTITUTIONAL PERSPECTIVE BASED ON THE RESULTS OF THE L.I.O.N. STUDY

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OBJECTIVES: To examine whether terbinafine or itraconazole is a more cost-effective treatment for onychomycosis in an institutional setting in Mexico. **METHODS:** A cost-effectiveness analysis was designed; a decision tree with bayesian approach was used to model the cost-effectiveness of terbinafine vs. itraconazole in the treatment of onychomycosis in Mexico. The perspective was from the Mexican Institute of Social Security (IMSS). Discount rate was not used because the time horizon was less than 1 year. Resource use data was taken from IMSS. Cost data for medications was obtained from a local drug distributor database (NADROSA Aug 2009), assuming terbinafine dosing scheme as 250 mg daily for 3 months, and itraconazole dosing scheme as 400 mg daily for 7 days every 4 weeks for 3 months (pulse dosing scheme). Cost data for physician consult was estimated as a fixed-variable. As this analysis was performed from an institutional perspective, no other costs were identified to be required for the treatment of onychomycosis. Using data from the L.I.O.N. clinical study, mycological cure success rates were estimated for both treatments as first options; for mycological cure failures, re-treatment costs were estimated using a second terbinafine scheme in both groups and an additional physician consult. Total costs per patient were determined and incremental cost-effectiveness ratios were calculated. A Monte Carlo (100,000 iterations) simulation was performed to reduce the error <0.03. A probabilistic sensitivity analysis was performed. **RESULTS:** The incremental cost analysis revealed a total cost of $3823 for terbinafine vs. $7152 for itraconazole (both in Mexican pesos, $p < 0.001$) per patient successfully treated. Terbinafine provides superior total health benefits than itraconazole regardless of willingness to pay. The sensitivity analysis confirmed the robustness of the model. **CONCLUSIONS:** From an institutional perspective, terbinafine is a more cost-effective (dominant) choice than itraconazole for treating onychomycosis in Mexico.

PSS6

THE COST-EFFECTIVENESS OF ISOTRETINOIN IN PATIENTS WITH MODERATE-TO-SEVERE ACNE VULGARIS

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OBJECTIVES: To assess from a societal perspective whether isotretinoin (13-cis-retinoic acid) or oral antibiotics in combination with topical preparations is the more cost-effective first-line treatment of moderate-to-severe acne vulgaris. **METHODS:** A decision-tree model was used to simulate therapy costs and effectiveness. All estimates of cost and effectiveness were obtained from the literature or expert opinion. The cost-effectiveness ratio was reported as incremental cost per quality-adjusted life-year (QALY) gained. The time horizon was 2 years. Costs and QALYs were discounted by a monthly rate of 0.0025%, which is equivalent to an annual rate of 3%. All costs were adjusted to 2009 US dollars. A one-way sensitivity analysis was used to determine the robustness of the model's results. The model was developed using Microsoft Excel. **RESULTS:** Isotretinoin increases discounted costs by $1,486 and discounted QALYs by 0.071 years when compared to conventional therapy of oral antibiotics and topical preparations. This resulted in an incremental cost-effectiveness ratio (ICER) of $20,930 per QALY gained for the base case. The results of the model were insensitive to most model parameters except for the probabilities associated with achieving adequate response or relapse while on therapy. The biggest change in the ICER (204% increase) was caused by a 17% increase in the probability of maintaining adequate response (no relapse) with conventional therapy. Although the ICER was sensitive to these probability values, the highest ICER value of $63,602/QALY found from the sensitivity analysis was still below the threshold for cost-effectiveness. **CONCLUSIONS:** Isotretinoin was more costly and also more effective than conventional therapy. These results did not change when model parameters were varied in the sensitivity analysis. Assuming a $120,000/QALY threshold for cost-effectiveness, isotretinoin was cost-effective in the first-line treatment of moderate-to-severe inflammatory acne.

PSS7

COMPARING FIXED-COMBINATION THERAPIES FOR TREATING PATIENTS WITH OPEN-ANGLE GLAUCOMA IN A MANAGED CARE ENVIRONMENT

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OBJECTIVES: Glaucoma, a chronic disorder that requires lifelong treatment, creates a financial burden on patient and health care payers. This study compared fixed-combination therapies in patients with open-angle glaucoma, namely, Latanoprost with Timolol (LT), Dorzolamide with Timolol (DT), and Brimonidine with Timolol (BT). **METHODS:** A cost effectiveness analysis was conducted by extracting data from published literature and primary data collected from pharmacy stores. The study was conducted from a managed care perspective with drug utilization for a period of 12 months. A decision analytic model was developed and incremental cost-effectiveness ratios (ICER) were calculated. Therapy cost was calculated by considering medication cost (by taking an average reimbursement amount provided by Medicare part D and private insurances), physician visit cost, cost associated with adverse drug events, and cost due to lack of patient persistency (based on expected annual drug usage). Effectiveness measure considered was percent reduction in intraocular pressure (IOP) from baseline. A one-way sensitivity analysis was performed by varying cost by 25% to take into consideration the potential wastage, overutilization, underutilization, and various differences in IOP reduction in patients. **RESULTS:** Mean average percent IOP reduction for LT, DT and BT was 6.3%, 4.3% and 4.6%, respectively. The total cost of therapy for LT, DT and BT was estimated to be $711, $935, and $1099, respectively. ICER analyses indicated a gain of $111.5 for change from DT to LT, while a change from BT to LT indicated a gain of $228. The results remained robust after sensitivity analysis. **CONCLUSIONS:** In our study, LT was found to be more cost-effective compared to DT and BT. Managed care payers may wish to prioritize fixed-combination therapies used for glaucoma considering medication related adverse events and persistency. Further, research taking into account various other costs should be conducted to provide better evidence.

PSS8

COST EFFICACY OF USTEKINUMAB IN TREATMENT OF MODERATE TO SEVERE PLAQUE PSORIASIS IN TURKEY

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OBJECTIVES: Psoriasis is a chronic and incurable systemic inflammatory disease with devastating impact on overall health of patients. Ustekinumab, a fully human monoclonal antibody, is the first treatment to specifically target IL-12 and IL-23.The efficacy and safety of ustekinumab have been studied in three Phase III, international, randomised, controlled clinical trials and its clinical superiority over etanercept was demonstrated in a Phase III trial (ACCEPT). The objective of this study was to compare cost efficacy of subcutaneously administered biologics by using a cost per responder model in Turkey. The study was undertaken from a Turkish health care payer perspective. **METHODS:** In the cost per responder model, clinical efficacy was measured by improvement in the Psoriasis Area and Severity Index (PASI 75 response) from randomized, controlled trials. An indirect comparison using a Mixed Treatment Comparison (MTC) meta-analysis was used to estimate response rates. Comparators used in the model were ustekinumab, etanercept, adalimumab, and efalizumab. Ustekinumab efficacy has been analyzed based on patient's weight for patients with a